165346

ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES

# Illinois Waste Management and Research Center

Natural Resource Trustee Program

928 South Spring Street, Springfield, Illinois 62704
(217) 557-7815 Fax (217) 524-6674 TDD (217) 782-9175

http://www.wmrc.uiuc.edu

July 24, 2000

Kevin Turner
U.S. Environmental Protection Agency
c/o Crab Orchard National Wildlife Refuge
8588 Rt. 148
Marion, IL 62959

Subject: Time Critical Removal Action Work Plan (work plan) - Dead Creek Sediment and Soil Removal: Natural Resource Trustee Program (NRTP) Review

Dear Mr. Turner,

As a designated trustee for the State of Illinois, it is the responsibility of the Illinois Department of Natural Resources (Department) to serve the public's interest in protecting Illinois natural resources and the services they provide. Accordingly, the Department has established the NRTP to carry out these responsibilities as they apply under the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Clean Water Act (CWA), and the Oil Pollution Act (OPA).*

The NRTP has reviewed the work plan for Dead Creek in Sauget and Cahokia, Illinois. Please find attached a copy of our comments regarding the subject draft document. Regarding the proposed activities described in the subject work plan, Dead Creek, its watershed including the wetland in Segment F, and the wildlife that inhabit or use these areas represent natural resources that are of interest to the trustees. Information exists that leads us to believe that State threatened and/or endangered species as well as migratory birds may be found within these areas. Any removal action within the stream channel may affect the natural ecosystem within, surrounding, and downstream of that removal action.

Dr. Denise Stoeckel of my staff attended a meeting in Sauget, IL on June 14, 2000 where the removal of contaminated sediments and the replacement of culverts along the channel of Dead Creek were discussed. Dr. Stoeckel voiced a concern that the method discussed for the installation of larger culverts would change the hydrology of the stream's watershed resulting in rapidly fluctuating water levels which could in turn negatively alter the ecology of the receiving wetland (Segment F). These same concerns were also voiced by the US Fish & Wildlife Service (USFWS) during the meeting. Upon review of the work plan, it appears Solutia may be using these concerns as justification for not complying with the Dead Creek Culvert Replacement Project Unilateral Administrative Order (UAO) issued in June of 1999.

Specifically, recurring statements appear throughout the work plan stating; *"Third, pushing a large volume of storm water faster down Dead Creek will result in a rapid rise and fall of water levels in the large wetland ... Such rapid fluctuations in water level will have an adverse impact on the wetland ... Replacing these three culverts, and the upstream culverts ... will take a considerable period of time to engineer, fund and build."* From a trustee perspective, these statements are not justified.

While it is true that the impact of these activities to the watershed of Dead Creek should not be ignored, the issues brought forth by my staff were not expressed as a means to impede/delay the removal action or the replacement of the existing smaller, inadequate drainage culverts. Rather, there are several methods that can be employed to enhance the hydrology of the "new" stream channel after the removal of sediments and during the placement of the larger culverts. The USFWS suggested a few such methods during the June 14th meeting. Additional alternative methods have been provided in the attached comments. We do not believe that incorporation of these alternatives will "*take a considerable period of time to engineer, fund and build*".

We appreciate the opportunity to review this work plan and look forward to further participation as a trustee in activities associated with the Sauget Superfund Sites. If you have any questions regarding this or related matters, please contact Mike Henry of my staff at (217) 557-7817. Thank you.

Sincerely,

Stephen K. Davis, P.G.
Program Manager

Attachment

CC: File: Sauget/Solutia
K. de la Bruere, USFWS
M. Henry, IDNR
G. Miller, IDNR
C. Morin, IEPA
D. Stoeckel, IDNR
G. Vander Velde, IDNR

# DOCUMENT REVIEW

## ILLINOIS DEPARTMENT OF NATURAL RESOURCES

## NATURAL RESOURCE TRUSTEE PROGRAM

**Document Reviewed:** Time Critical Removal Action Work Plan, Solutia, 6-30-00
**Submitted By:** Denise Stoeckel
**Date:** July 21, 2000

I have reviewed the document and have the following comments regarding natural resource injury/damage issues:

1. Reference: 4.3.2 Creek Segment B, paragraph 3; 4.3.3. Creek Segments C, paragraph 3; Creek Segment D, paragraph 6; 4.3.5. Creek Segment E, paragraph 6.

For each creek segment the work plan states three reasons for not replacing culverts or for replacing existing culverts with ones of similar size:

1. The Village of Cahokia is planning to conduct a study of the cause of flooding in Dead Creek and to identify potential solutions.
2. Larger culverts will cause rapid fluctuations in the flood regime resulting in a negative impact to the downstream wetland (Creek Segment F).
3. Larger culverts will move water down stream at a fast rate resulting in more flooding because of the capacity of downstream culverts.

On June 21, 1999 the USEPA submitted a UAO to Solutia (Culvert UAO) regarding the replacement of existing culverts along Dead Creek with "...precast concrete culverts sized to convey water from one creek segment to the next without build up under flood conditions." I made my oral recommendations at the June 14, 2000 meeting with this action in mind. Therefore the first and third reasons for not replacing the existing culverts listed above are mute since Solutia has been ordered by the USEPA to replace "current culverts on Dead Creek". Secondly, my concern regarding the alteration of the hydrological regime of the watershed and it's possible effects on the wetland in Creek Segment F was meant to guide Solutia with respect to the development of their Time Critical Removal Action Work Plan since the Plan was to include a study of the 100-year flood elevations and flow design requirements for the culvert replacement project.

There are several available methods of altering storm water flow to prevent harmful effects to the environment. Some of these methods include a series of retention ponds, riffle-run-pool environments, and meandering of the stream channel. It has been shown that storm water systems that involve the passage of storm water through a series of ponds has significant environmental and economic advantages over the conventional engineered storm water management systems. Systems such as this provide habitat and enhance the area for the local citizens. Several engineering companies specialize in this sort of work.

2. Areas undergoing soil/sediment excavation, particularly creek segments (either part or all) B, C, D, and E, should be re-seeded with native vegetation. This would encourage the reappearance of existing habitat and hopefully discourage the growth of invasive species. IDNR staff could provide Solutia with guidance with regard to what plant species to use and monitoring of habitat establishment.

We agree that some trees and other existing habitat will be lost due the proposed clean up effort. The removal of the contaminants from the sediments will result in the removal of a pathway of exposure to State natural resources. Therefore the loss of a few trees is accepted. However, if Solutia finds that a significant loss of trees (especially larger, older trees) will occur as a result of the remediation activities, IDNR would appreciate being consulted to determine alternative remedies.

CC: File: Sauget Area 1/Solutia
M. Henry
S. Davis